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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor : John A. Arbuckle
Application Number : 09/622,353
Filing Date : 09/12/2000
Title : Transposable Element-Anchored, Amplification
Method for Isolation and Identification of Tagged
Genes

Group/Art Unit : 1637
Examiner : J. Tung

Attorney Docket Number : 0457-PCT-US-EE

Mall Stop RCE
Commissioner for Patents
P.O. Box 1450
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SUBMISSION UNDER 37 C.F.R. §1.114(C)

Dear Sir:

In response to the Advisory Action of April 8, 2003, Applicants respectfully request that in view of the RCE filed herewith and the arguments presented herein that the application be reexamined and reconsidered. A Notice of Appeal was filed March 12, 2003. A one-month extension of time is submitted with the RCE attached herewith.

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REMARKS

Claims 1-21 are pending in the case. The Examiner has maintained the rejection of claims 1, 4, 7, 9-13 and 15-21 under 35 U.S.C. §103(a) as being unpatentable over Briggs *et al.* (U.S. Pat. No. 5,962,764) in view of Lindemann *et al.* (U.S. Pat. No. 5,958,738). Claims 2-3, 8 and 14 were also deemed unpatentable under §103 in further view of Schnable *et al.* and Halverson *et al.* in light of their dependency from claim 1.

In the advisory action the Examiner states "the teachings of Briggs *et al.* read on the limitation of claim 1 because the limitation of claim 1 does not limit to identify unknown genetic sequence. Thus the limitation of claim 1 is read on identifying known genetic sequence associated with that known sequence." Advisory Action, page 2. Applicants point out that whether or not the teaching of Briggs *et al.* "read on" (i.e., embraces) a single limitation in claim 1 is not relevant to the question of whether Briggs *et al.* in view of Lindemann *et al.* render obvious the claimed invention as a whole. As indicated by Dr. Robert Meeley (co-inventor on the Briggs *et al.* patent) in the telephonic interview of March 4, 2003, the invention of Briggs *et al.* with its objective of identifying a mutant phenotype is wholly inadequate to identify and isolate a genetic sequence in the manner claimed.

The reverse-genetics method of Briggs *et al.* cannot simply be utilized in reverse to obtain the forward-genetics method of the claimed invention. Substantial modification (and hindsight reconstruction) would be required. Indeed, modification of the invention of Briggs *et al.* by using an adaptor and primer, per the reference of Lindemann *et al.*, would render the invention of Briggs *et al.* inoperable for its intended purpose. The method of Briggs *et al.* requires a primer to a known genetic sequence, not to an adaptor as in the claimed invention. The Federal Circuit has stated clearly on several occasions that if a proposal for modifying the prior art in an effort to attain the claimed invention causes the cited art to become inoperable or destroys its intended function, then the requisite motivation to make the modification

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would not have existed. *In re Fritsch* 23 USPQ2d 1780, 1783 (Fed. Cir. 1992); *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984). The Applicants decline to limit claim 1 to the identification of unknown genetic sequences. Whether the genetic sequence being identified and isolated by the claimed invention is known or unknown, the method of Briggs *et al.* cannot be modified in the manner proposed by the Examiner without rendering the invention of Briggs *et al.* inoperable. On the basis of this impermissible modification the Examiner has rejected the claims as obvious. But this argument cannot provide the requisite suggestion or motivation to make the claimed invention that is required to sustain a rejection under 35 U.S.C. §103.

The Examiner's point that the claimed invention "uses the primer "which has genetic sequence (the transposable element)" is not clear. Advisory Action, page 3. Applicants point out the 37 C.F.R. § 1.104 stipulates that the Examiner's action must be "complete as to all matters" and that the pertinence of each reference, if not apparent, must be clearly explained. See paragraphs (b) and (c). Applicants respectfully request clarification if the rejection is maintained.

In light of the foregoing, Applicants respectfully request that the Examiner reconsider her rejection of the outstanding claims and allow the pending claims to pass to issuance. If the Examiner sustains the rejections Applicants respectfully request an interview with Examiner Tung and her supervisor Examiner Benzion.

Respectfully submitted,



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